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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Naoki Oguchi

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EXAMINER

LEE, ANDREW CHUNG CHEUNG

ART UNIT

PAPER NUMBER

2619

MAIL DATE

DELIVERY MODE

09/04/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/988,958	Applicant(s) OGUCHI ET AL.	
	Examiner Andrew C. Lee	Art Unit 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Claims 5 – 13 are pending.
Claims 1 – 4 have been canceled.

Claim Objections

2. Claims 5, 6, 7, 8, 9, 12, 13 are objected to because of the following informalities:

Regarding claim 5, the claimed subject matter “the virtual links” should be corrected as “the unicast virtual links” so as in consistent with the rest of the claims. Appropriate correction is required.

Claims 6, 7, 8, 9, 12, 13 have the same deficiencies as stated in claim 5, the claimed subject matter “the virtual links” should be corrected as “the unicast virtual links” so as in consistent with the rest of the claims. Appropriate correction is required.

Regarding claim 9, the adjective “other” is not clear here what mean by other. One with ordinary skilled in art will ask “which is the other?” Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 9 recites the limitation "a virtual private network" in line 14. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "a virtual private network" in line 10. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5, 9, 6, 10, 11, 7, 12, 8, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jamieson et al. (US 7039687 B1, & prior art) in view of Nurenberg et al. (US 6181697 B1).

Regarding claims 5, 9, Jamieson et al. disclose a virtual private network construction system for a public data communication network ("VNP may be formed by connecting two, four or more networks across the shared network" interpreted as a virtual private network construction system for a public data communication network; Abstract, Fig. 1, col. 3, lines 20 – 27) comprising: whereby a virtual private network is constructed with the virtual relaying structures that are specific to a same multicast address in the first and the second relaying apparatuses, with the unicast virtual links establish between all pairs of the virtual relaying structures and with virtual interfaces receiving packets from outside the public data communication network (col. 2, lines 31 – 45, col. 5, lines 54 – 64). Jamieson et al. also disclose first relaying apparatuses with virtual relaying structure generating and multicasting control packets each of which is destined to a multicast address assigned to the virtual relaying structure ("element A

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10, Private Network Adaptation Devices “ interpreted as first relaying apparatuses with virtual relaying structure; Fig. 1, col. 3, lines 59 – 67, col. 4, lines 1 – 6), second relaying apparatuses with virtual relaying structure, which receives the control packets from the first relaying apparatuses with the multicast address (“element B 10, Private Network Adaptation Devices” interpreted as second relaying apparatuses with virtual relaying structure; Fig. 1, col. 3, lines 59 – 67, col. 4, lines 1 – 6).

Jamieson et al. do not disclose explicitly first relaying apparatuses with virtual relaying structure generating and multicasting control packets each of which is destined to a multicast address assigned to the virtual relaying structure and contains a unicast address specific to the virtual relaying structure, and second relaying apparatuses with virtual relaying structure, which receives the control packets from the first relaying apparatuses with the multicast address, establishing unicast virtual links using the unicast address in the control packets with the first relaying apparatuses which are transmitting sources of the control packets returning reply packets to the first relaying apparatuses through the virtual links.

Nurenberg et al. teach first relaying apparatuses with virtual relaying structure generating and multicasting control packets each of which is destined to a multicast address assigned to the virtual relaying structure (“element 120, Multicast-Unicast Server” interpreted as first relaying apparatus; Fig. 1, col. 3, lines 29 – 45, lines 66 – 67, col. 4, lines 1 – 6) and contains a unicast address specific to the virtual relaying structure (col. 4, lines 6 – 11), and second relaying apparatuses with virtual relaying structure, which receives the control packets from the first relaying apparatuses with the multicast address, establishing unicast virtual links using the unicast address in the

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control packets with the first relaying apparatuses which are transmitting sources of the control packets and returning reply packets to the first relaying apparatuses through the virtual links ("element 121, Multicast-Unicast Server" interpreted as second relaying apparatus; Fig. 1, Fig.1, col. 3, lines 29 – 45, lines 66 – 67, col. 4, lines 1 – 6, lines 20 – 28).

At time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the teachings of Jamieson et al. to include the features of first relaying apparatuses with virtual relaying structure generating and multicasting control packets each of which is destined to a multicast address assigned to the virtual relaying structure and contains a unicast address specific to the virtual relaying structure, and second relaying apparatuses with virtual relaying structure, which receives the control packets from the first relaying apparatuses with the multicast address, establishing unicast virtual links using the unicast address in the control packets with the first relaying apparatuses which are transmitting sources of the control packets returning reply packets to the first relaying apparatuses through the virtual links as taught by Nurenberg et al. One of ordinary skill in the art would be motivated to do so for providing a endpoint client on a Unicast network with the ability to access a Multicast session on an Multicast network and re-Multicast that session to other endpoint clients (as suggested by Nurenberg et al., see col. 1, lines 19 – 22).

Regarding claims 6, 10, Jamieson et al. disclose the virtual private network construction method, system, apparatus as claimed in claimed wherein the second relaying apparatuses authenticate the control packets received (col. 5, lines 36 - 42).

Regarding claim 11, Jamieson et al. disclose the relaying apparatus as claimed further comprising means for generating a routing table for each of a plurality of virtual networks logically independent of one another (“forwarding table” interpreted as a routing table for each of a plurality of virtual networks logically independent of one another; Col. 5, lines 47 – 53), and means for performing a packet relay of each virtual network based on the routing table (col. 5, lines 54 – 56).

Regarding claims 7, 12, Jamieson et al. disclose the virtual private network construction method, system, apparatus as claimed wherein the virtual links comprise IP tunnels (“internet protocol (IP) tunneling”; col. 1, lines 36 – 39).

Regarding claims 8, 13, disclose a virtual private network construction method, system, apparatus wherein the virtual links comprise MPLS tunnels (“multipoint-to-point LSPs and Multipoint-to-Multipoint LSPs”; col. 3, lines 55 – 61).

Response to Arguments

6. Applicant's arguments filed on 08/08/2008 with respect to claims 5 – 13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Morgenstern et al. (US 6587467 B1).
- Delancey et al. (US 6937574 B1).
- Rao et al. (US 6674756 B1).

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- Casey et al. (US 6205488 B1).
- Yamauchi (US 7272146 B2).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571) 272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew C Lee/
Examiner, Art Unit 2619
<8/30/2008>

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